

June 10, 2005

Hurricane Watch

Eglin Eagle Special Supplement

Eglin gears up for storm season

2005 tropical storm season is heating up, predicted to be busy

BY SENIOR AIRMAN
MIKE MEARES
96TH AIR BASE WING
PUBLIC AFFAIRS

The tropics are heating up again and creating a breeding ground for tropical storms.

With the memory of a busy hurricane season, including Hurricane Ivan fresh in Eglin's memory, it's time to gear up for another hurricane season.

The 2004 season was the first time since 1964 that Florida was slammed by four hurricanes in one season. The 2004 storms caused \$1.7 billion in damage.

This year's hurricane season, which began June 1, may prove to be just as stormy.

National Oceanic and Atmospheric Administration scientists are predicting a 70 percent

chance of above-normal hurricane activity in the Atlantic region.

This year's outlook calls for 12 to 15 tropical storms, with seven to nine becoming full-fledged hurricanes and three to five developing into major hurricanes. The threat of hurricanes in the Pacific is below normal, scientists said.

"Each year, from June through November, Americans living on the Eastern seaboard and along the Gulf of Mexico face an increased threat of hurricanes," said President George W. Bush. "To prepare for the 2005 hurricane season, I urge all our citizens to become aware of the dangers of hurricanes and tropical storms and to learn how to minimize their destructive effects."

In 2004, Hurricane Ivan caused the evacuation of 20,000 Eglin and Hurlburt Field Airmen, civilian employees and their families before it struck Sept. 14.

Immediately after the storm, Eglin officials were in the skies using helicopters assessing the damage to the area while Hurlburt officials used jet skis to get to flooded areas of an off-base housing community. Ivan's 90-mph winds stirred up a storm surge that flooded much of that housing area's waterfront property and left 200 off-base families homeless, like Maj. Joseph Siedlarz, Air Force Special Operations Command Headquarters at Hurlburt Field.

While he stood next to his 48-inch television, which had floated out of his living room and come to rest in a field next to his home, Major Siedlarz said the water was so deep in his house that his friend was able to launch a kayak from his kitchen.

"I learned that material things don't really matter," he said. "But you can't replace photos or family videos, so I suggest everyone take special care of those items."

Being prepared starts with knowing how hurricanes form and what the ingredients are for a strong storm.

According to the National Hurricane Center Web site, a hurricane is a severe tropical storm that forms in the southern Atlantic Ocean, Caribbean Sea, Gulf of Mexico or in the eastern Pacific Ocean. If the right conditions last long enough, a hurricane can produce violent winds, large waves, torrential rains, flooding, tornadoes and lightning.

The term "hurricane" originated from the Spanish and Caribbean Indians who used the word to reference big winds they believed were caused by evil spirits.

A weak, slow moving tropical storm can produce 10 to 15 inches of rain. In the past 30 years, 60 percent of hurricane deaths were due to flooding. Heavy rains can start many hours before a storm hits land.

Hurricane Georges (September 1998) proved that rain can start before a storm nears land. Although Eglin did not experience sustained hurricane force winds, Georges dumped 24.24 inches of rain here. This set the base's 24-hour rainfall record at 9.6 inches. Roads in the area were flooded and Crestview was cut off by the Yellow and Shoal Rivers.

Airmen from the 46th Weather Squadron are monitoring the Gulf of Mexico and watching the Atlantic Ocean for developing tropical storms.

They'll be keeping their eyes on the tropics throughout the 2005 hurricane season.

(Additional information provided by Master Sgt. Orville F. Desjarlais Jr. of Air Force Print News.)

2005 Hurricane names

Arlene
Bret
Cindy
Dennis
Emily
Franklin
Gert
Harvey
Irene
Jose
Katrina
Lee
Maria
Nate
Ophelia
Philippe
Rita
Stan
Tammy
Vince
Wilma



Photo by Sue Sapp

ROBINS AIR FORCE BASE, Ga. — Airman 1st Class Ryan Bushey, a Naval Explosive Ordnance Disposal School student, watches a movie on a portable DVD player in the gym during Hurricane Ivan's mandatory evacuation Sept. 13 to 18, 2004.

Street *talk*

What are you doing to prepare for the hurricane season?



Keith Arsenault
Retired Air Force

"We usually buy lots of batteries, water and non-perishable food. We also board up our windows."

Staff Sgt. Javier Mercado
141st Air Control Squadron

"I make sure our supplies are stocked — food, fuel and water. I also plan ahead in the event of an evacuation."



Bill Ross
Retired U.S. Navy

"We bought a stove, gas grill and extra coolers. We also made sure our chain saws and yard equipment are in working order."

Laura Salas
Military spouse

"We haven't started any preparations yet, but we do plan on taping our windows and we usually pack up our electronics and valuables."



Master Sgt. Edwin Acevedo
141st Air Control Squadron

"We have a responsibility to assist people in the event of a disaster, so we stock extra generators and coordinate with local hospitals to be prepared."

Timeout: Now is time to prepare for active storm season

COL. EDMOND KEITH
96TH AIR BASE WING COMMANDER

As hurricane season opens, it's important for us to take some time to reflect on the lessons we learned from an active hurricane season last year — one that brought four hurricanes ashore in Florida.

Air Force bases across Florida were impacted by hurricanes, and here we felt the affect of Hurricane Ivan. Hurricane Ivan took the lives of two Team Eglin members, left more than 200 Team Eglin families homeless and did millions of dollars of damage to our communities.

If the storm hit 20 miles further to the east, the damage would have been even more devastating. Even today we still see the lasting evidence of the hurricane's impact; it only takes an hour car ride to our west to see where damage has still not been repaired.

Forecasters at the National Hurricane Center are calling for another active season this year. According to forecasts released

last month, there could be 12 to 15 tropical storms with seven to nine of those storms becoming hurricanes. Three to five of the hurricanes could become major hurricanes.

This forecast is not a reason to panic — or wish you were somewhere other than our beautiful Emerald Coast — but rather a reason to prepare.

Many of you can probably recall the area shortages of plywood, bottled water, tarps and other necessary hurricane readiness supplies as Hurricane Ivan neared our shores. The stress of waiting in long lines just to buy supplies can be avoided by planning ahead now.

The information contained throughout this special hurricane insert offers tips and suggestions on how to be prepared, supplies you'll need in a readiness kit, what to do with family pets and many more helpful hurricane pointers. I encourage you to use this resource as a tool to prepare your family for this hurricane season.

In addition to being prepared,

it's crucial to heed all warnings issued by base and local officials. In the event of a hurricane, updates will be posted at the main entrances to buildings on base alerting personnel of the current hurricane alert status of the base.

Information about the hurricane's approach will be released through official channels in plenty of time to keep our most valuable assets — our people — out of harm's way.

If you're told to evacuate, you should do so immediately. Don't risk your life and cause others unnecessary worry by attempting to stay in the area and ride out the storm.

I encourage you all to take time out of your summer trips to the beach, backyard barbecues and boating trips to plan ahead in case we are faced with the reality of another active hurricane season.

Planning head now will save you many headaches when a dangerous storm is approaching — and allow you to get out of harm's way quickly.



Eglin shelters

Eglin shelters are for Department of Defense ID holders. The installation commander approves the release of non-mission critical military civilian personnel from duty.

In the event of an evacuation, multiple centers on base may be opened. Information about designated shelters can be obtained by calling the 96th Civil Engineer Readiness Flight at 882-3172.

Pet owners are required to register their pets at the fitness center. Pet registration begins during HURCON 2.

Okaloosa County hurricane shelters

Safety levels are not guaranteed at any shelter. Shelter locations are selected because they are outside of hurricane surge zones and are of generally sturdy construction.

Baker School
1369 14th Street
Baker, Fla.

Davidson Middle School
6261 Old Bethel Road
Crestview, Fla.

Hurricane shelters are not automatically opened during an evacuation. Listen to local radio stations for current updates.

For official hurricane information, visit www.nws.noaa.gov.

Tie down: Protect homes from hurricanes

BY 1ST LT. KRISTEN D. DUNCAN
96TH AIR BASE WING
PUBLIC AFFAIRS

Whether inclement weather drives base personnel to evacuate or to shutter themselves inside their homes, there are preparations that should be done to protect valuables at home.

To adequately prepare a home, follow the home preparation checklist of ABCs in the Full Spectrum Threat Response Handbook: anchor, brace, cover and strap.

Check the yard for items that could become wind-borne. Bring these things inside and ask neighbors to do the same. Trim and anchor down plants and trees and harness free-standing fixtures in the yard. Also make sure the house has a wall-to-foundation connection with anchor bolts and re-bar.

After the outside of the house has been secured, the next step is to bolt all doors with 1-inch foot and head bolts and reinforce the garage door and tracks with center supports. Strap rafters and trusses to walls with hurricane straps or clips.

Cover all large windows and doors with impact-resistant shutters or replace them with impact-resistant laminated window and door systems if possible. Make

sure all doors and windows are properly caulked and weather stripped. Also, be sure the roof covering is rated for hurricane-force winds.

Families who live on-base are responsible for preparing their own home and yard before a storm hits, said Keli Martin, housing maintenance office controller. Plywood is not recommended for covering windows because it is at the resident's expense, and they must incur the cost of any structural damage from screws or holes left from mounting the boards.

By following these outdoor tips, the whole community will be better prepared during hurricane season. For residents near coastal waters or in high flood zones, there are some indoor preparations that many forget to include on their checklists.

"If I could do one thing over again, I would definitely have moved everything that was on the floor-level (or below table height) to at least table or bed height," said Mike Spaits, environmental public affairs officer. "You never think about taking water in, but when you do, anything that's sitting in a closet floor or on low shelves in a bookcase is lost. You'd really be shocked at how much of your life exists below your tables in your house."



Courtesy photo

An oak tree blown over by Hurricane Ivan in September 2004 lays on Bldg. 249 on base. Hurricane Ivan caused more than \$86 million in damage to the base.

A new Florida law states that no sales tax will be collected on items related to hurricane preparedness through June 12. The following items are exempt from sales tax during this period:

Items selling for under \$20

- ✓ Batter powered flash lights
- ✓ Battery powered lanterns
- ✓ Gas powered lanterns
- ✓ Candles

Items selling for under \$25

- ✓ Any gas or diesel fuel container

Items selling for under \$30

- ✓ Batteries (also rechargeable) in the following sizes: AA, C, D, 6-volt and 9-volt (excluding car and boat batteries)
- ✓ Coolers and ice chests (food storage; non-electrical)
- ✓ First aid kits

Items selling for under \$50

- ✓ Radios, weather radios and

two-way radios

- ✓ Tarps
- ✓ Flexible waterproof sheeting
- ✓ Ground anchor systems
- ✓ Tie-down kits

Items selling for under \$750

- ✓ Portable generator used to provide light, communication or to preserve perishable foods in the event of a power outage

Information provided by the Florida Department of Revenue

Money matters

Readiness relieves stress of evacuations

BY LOIS WALSH
96TH AIR BASE WING PUBLIC AFFAIRS

Last year's mandatory evacuation during Hurricane Ivan taught many residents a valuable lesson; plan ahead to be financially ready to leave the area.

The 96th Comptroller Squadron processed approximately 9,000 travel vouchers worth \$6 million after the storm. According to Senior Master Sgt. Daniel Taylor, 96th CS, they hope they don't need to do that again.

But the reality is the 2005 hurricane season is shaping up to potentially have an impact on Eglin personnel, and the squadron is ready to reimburse expenses as directed.

A critical element is for people to understand the directed order and determine if it is relocation or evacuation.

"If the commander directs relocation of residents from a low-lying area to a base shelter, there is no reimbursement for individuals leaving the base," Sergeant Taylor said. "It is only during a commander-directed evacuation that a voucher can be filed."

Sergeant Taylor said there are three options to pay expenses for possible evacuation: an emergency fund, a government travel card or a personal credit card.

"I would suggest putting a few hundred dollars aside in an emergency expense account," Sergeant Taylor said. "If the evacuation is commander-driven, you have to pay up front."

Sergeant Taylor said it is difficult to do advances because money can't be disbursed until an evacuation order is published, which is when people are trying to leave.

He suggests that anyone with a government travel card activate it prior to hurricane season.

"You can use it for same expenses as ordinary (temporary duty)," Sergeant Taylor said. "It is mandatory to charge lodging, but meals can also be charged."

Although the sergeant admits it might not be the best option, a personal credit card designed for emergencies only can help ease the financial burden of evacuating.

"But pay it off as soon as you get

reimbursement," he said.

Sergeant Taylor said the main receipt needed to file a voucher is an original lodging receipt. How the evacuation order is posted determines per diem.

"It may be limited to a certain area or it may be limited to a certain amount of miles," he said. "On mile-age, per diem is based on where you seek shelter."

Sergeant Taylor said per diem is based on zip code or county.

"For example, someone staying in a suburb outside Atlanta will get the (continental United States) rate, not the Atlanta rate," he said.

Depending on what the hurricane season brings, the comptroller squadron and legal office plan on mass briefings so people will know up front what expenses will be reimbursed. They will also remind folks that only bona fide claims will be processed.

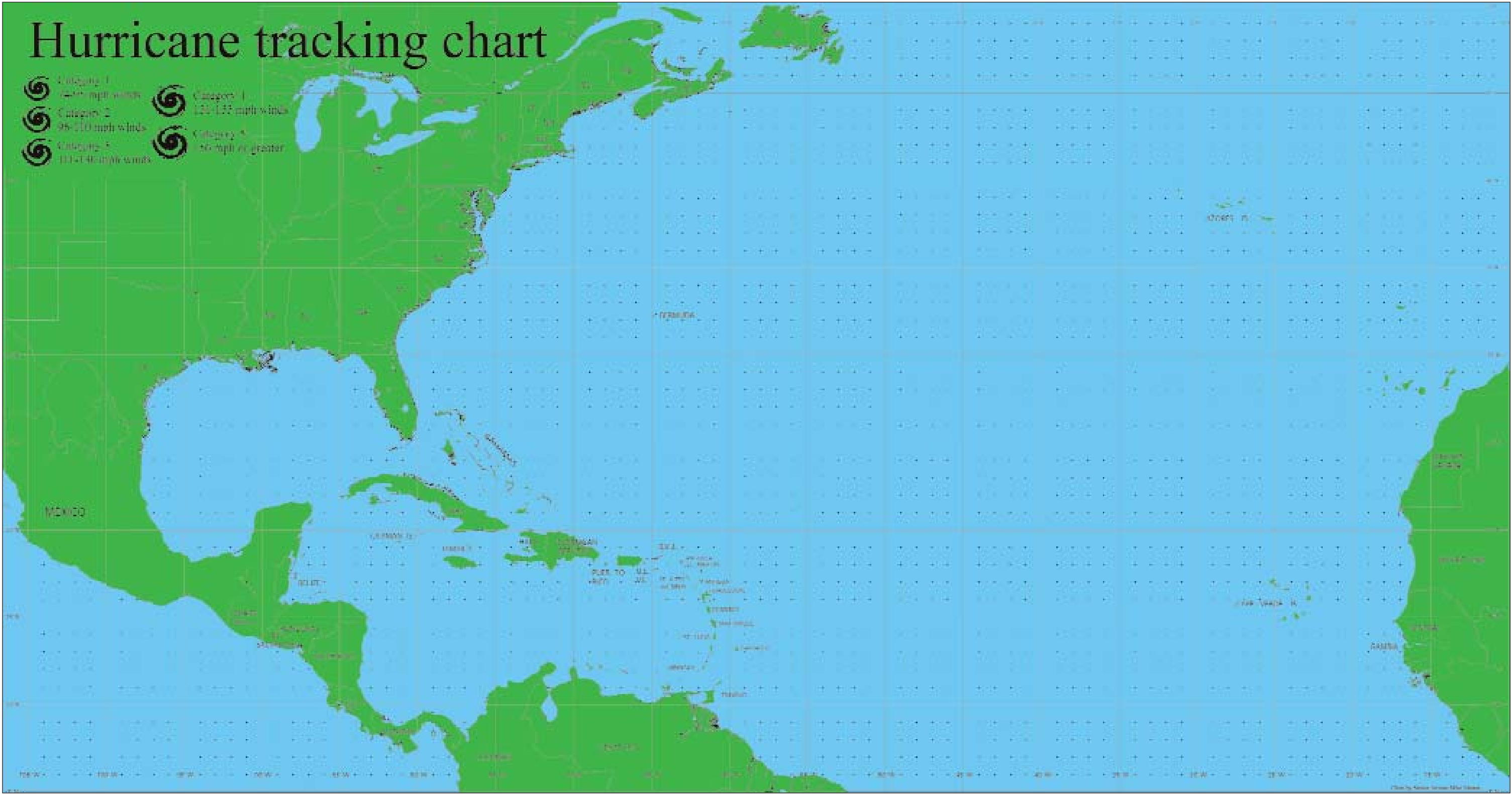
"We do screen the claims for fraud; any fraudulent claims will be turned over to (Office of Special Investigations)," Sergeant Taylor said. "Fraudulently filing for a couple hundred dollars is not worth your career."



RED CROSS RECOMMENDED DISASTER SUPPLIES

- Baby formula powder
- Batteries
- Bottled water
- Canned foods
- Disposable diapers
- Dry cereals
- Extra pair of glasses
- Extra set of keys
- First-Aid kit
- Flashlights
- Ice chests
- Insect repellent
- Instant milk
- Manual can opener
- Masking tape
- Weather radio
- Paper plates
- Paper towels
- Peanut butter
- Portable radio
- Potted meat
- Prescription medication
- List of family physicians
- Credit cards or cash
- Change of clothing
- Blanket or sleeping bags
- Style and serial number of medical devices like a pacemaker
- Important family documents
- Changes of clothing
- Snacks
- At least three gallons of sealed bottled water per person, per day
- Medicines
- Infant formula

June 2005



Weather terms to know

■ **Tropical disturbance:** A moving area of thunderstorms in the Tropics that maintains its identity for 24 hours or more.

■ **Tropical depression:** Rotary circulation at the ocean's surface. Highest constant wind speed is 38 mph (33 knots).

■ **Tropical storm:** Distinct rotary circulation, constant wind speed ranges 39-73 mph (34-63 knots).

■ **Hurricane:** Pronounced rotary circulation, constant wind speed of 74 mph (64 knots).

■ **Small-craft cautionary statements:** When a tropical cyclone threatens a coastal area, small-craft operators are advised to remain in port or not to venture into open sea.

■ **Gale warnings:** May be issued when winds of 39-54 mph (34-47 knots) are expected.

■ **Storm warnings:** May be issued when winds of 55-73 mph (48-63 knots) are expected. If a hurricane is expected to strike a coastal area, gale or storm warnings won't usually precede hurricane warnings.

■ **Hurricane watch:** Is issued for a coastal area when there is a threat of hurricane conditions within 24-36 hours.

■ **Hurricane warning:** Is issued when hurricane conditions are expected in a specified coastal area in 24 hours or less. Hurricane conditions include winds of 74 mph (64 knots) and/or dangerously high tides and waves. Actions for protection of life and property should begin immediately when the warning is issued.

■ **Flash flood watch:** A flash flood is possible in the area. Stay alert.

■ **Flash flood warning:** A flash flood is imminent; take immediate action.

■ **Tornadoes:** The extreme weather conditions that create hurricanes can sometimes spawn tornadoes. Although the tornadoes are not as strong as those produced in the midwestern part of the United States, they that can produce severe damage and casualties. If a tornado is reported in area, a warning will be issued.

Hurcon 4: Alert

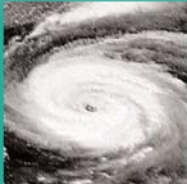
Hurcon 3: Preparation

Hurcon 2: Final preparation

Hurcon 1: Secure

**Hurricane Condition Four
(Alert Phase)**

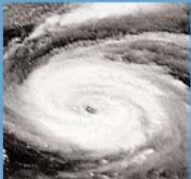
Has been declared by the 96th ABW commander



Destructive Winds of 50 knots (58 mph) or greater
are possible within 72 hours

Hurricane Condition Three (Preparation Phase)

Has been declared by the 96 ABW Commander

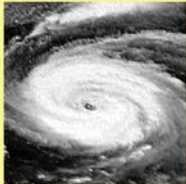


Destructive Winds of 50 knots (58 mph) or greater
are possible within 48 hours

Forty-eight hours prior to the forecast arrival of 50-knot sustained winds or greater. Monitor storm reports on local radio and television stations. Bring in lawn furniture, trash cans, potted plants and other loose objects. Individuals planning to evacuate should know the route they will take and consider leaving before an evacuation order is issued.

Hurricane Condition Two (Final Preparation Phase)

Has been declared by the 96 ABW Commander

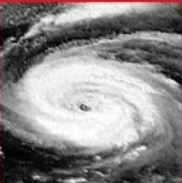


Destructive Winds of 50 knots (58 mph) or greater
are possible within 24 hours

Twenty-four hours prior to the forecast arrival of 50-knot sustained winds or greater. Listen constantly to storm reports. Board windows and glass doors. Turn refrigerator and freezer to their highest setting; freeze water in jugs. Fill sinks and tubs with water for bathing and sanitary purposes. Residents on high ground away from beaches should consider riding out the storm.

Hurricane Condition One (Final Preparation Phase)

Has been declared by the 96 ABW Commander



Destructive Winds of 50 knots (58 mph) or greater
are possible within 12 hours

Twelve hours prior to the forecast arrival of 50-knot sustained winds or greater. Remain indoors.

Pet plan

Pets can get caught in hurricane, too

INFORMATION PROVIDED BY
WWW.TRIPSWITH-PETS.COM

Meteorologists predict the entire United States coastline has an increased chance of being hit by a major hurricane again in 2005.

The best protection from a hurricane is to be prepared and have a plan. These plans should include the entire family — even pets.

Approximately 65 percent of households in the United States have at least one pet, and 99 percent of those households consider their pets family members.

It is not realistic to think certain areas cannot be affected by a hurricane. The entire Atlantic and Gulf coasts are considered high-risk areas. Inland areas are affected by the high winds, floods and tornadoes.

Florida leads the nation in new residents, and hurricanes are most frequent in this state. To keep loved ones and pets safe, create a disaster plan now.

The most important part of a disaster plan is to prepare for an evacuation. American Red Cross and local shelters don't accept pets, so compiling a list of pet-friendly lodging located inland or on evacuation routes is extremely important. Depending on the severity of the storm, the installation commander may direct opening a pet shelter on base. However, residents must be prepared for a worse-case scenario if mandato-



Pet Survival Kit

- ✓ Medications
- ✓ Medical records
- ✓ Veterinarian's name and phone number
- ✓ Current photos (in a waterproof container)
- ✓ Proper identification collar, tags and license
- ✓ Sturdy leashes, harnesses
- ✓ Pet carrier
- ✓ Food and water supply for at least two weeks
- ✓ Water and food bowls
- ✓ Manual can opener
- ✓ Cat litter and pan, scoop and plastic trash bags
- ✓ Special care instructions
- ✓ Pet bed and toys

ry evacuations are directed.

Those shelters that do accept pets, including shelters here, require that owners have proof that their pets are current on all vaccinations. Pet owners can obtain proof that their pet's records from the veterinarian.

In addition to current vaccinations, pets staying in shelters should have a carrier cage, leashes, ample supplies of food and water, any medications, specific care instructions and newspapers or trash bags for cleaning up after the pet.

It can be difficult, if not impossible, to find shelter for a pet in the middle of a disaster. By planning ahead, the task is relatively simple. With more and more Americans traveling with their pets, lodging has become increasingly pet-friendly.

To ensure safe travel, create a pet disaster kit. Assemble a kit of essential supplies in sturdy and easily transportable containers. A recommended list of items to be included are medications and copies of medical records, carriers or transports, current photos, a sturdy collar with blank identification tags to put evacuation contact information, food, portable water, manual can opener, cat litter, name and contact information of veterinarian, bedding and toys.

Last, make sure pets have identification tags attached to a sturdy harness or collar and leash. Include up-to-date contact and immunization information. If an evacuation order has been issued, either replace the collar with the one in the disaster kit, or secure the evacuation address and phone number on



Photo by Lois Walsh

People with pets should make plans for the care of their pets during a hurricane evacuation. Many shelters don't accept pets during an evacuation, so pet owners should plan ahead to develop a pet care plan. At Eglin, pets can be registered and sheltered at the fitness center, if opened.

the back of the identification tag.

It is extremely important to keep proper identification tags on pets. Many pets get unintentionally abandoned or separated during disasters; proper identification helps ensure the pets return home safely.

Even if an evacuation order has not been given, pets may be stressed or upset during a disaster and need extra attention. Make sure pets are brought

inside well before the storm arrives.

After the storm has passed, allow pets outdoors with caution and only under supervision. Familiar scents and landmarks may have been altered by the hurricane and pets could become confused or easily lost. Downed power lines, insects, snakes and other animals affected by the storm can be dangerous. Don't allow pets to consume tainted food or water.

Evacuation sites

As of publication, the designated evacuation sites in the event of a mandatory evacuation for Eglin personnel are Maxwell Air Force Base in Montgomery, Ala., and Fort Benning in Columbus, Ga.

In the event of a mandatory evacuation, stay tuned to base media for any updates on evacuation sites.

The following are Web sites offering maps and directions:

www.mapquest.com
maps.yahoo.com
maps.google.com
www.mapsonus.com



Before, during and after the storm: tips for hurricane readiness

When a hurricane watch is issued:

- ✓ Leave homes if authorities recommend evacuation.
- ✓ People who live in a mobile home or in a flood plain should go to a designated shelter.
- ✓ Stay tuned to radio stations for up-to-date storm information location and severe weather instructions.
- ✓ Bring pets indoors.
- ✓ Secure or store loose, outside objects.
- ✓ Lower antennas.
- ✓ Board up large windows and sliding doors.
- ✓ Brace garage doors.

- ✓ Secure boats in safe area.

- ✓ Fill bathtub with water.
- ✓ Put extra ice in the freezer.
- ✓ Fill cars with gas.
- ✓ Secure valuable papers in watertight containers and carry them if evacuating.

During a hurricane:

- ✓ Stay inside except for emergencies or ordered evacuations.
- ✓ Use telephones only for emergencies.
- ✓ Watch for falling trees, downed power lines and flooded streets.
- ✓ Keep away from glass windows and doors.
- ✓ Stay tuned to radio stations

After a hurricane:

- ✓ Don't drive unless necessary.
- ✓ Stay away from damaged or flooded areas.
- ✓ Report any downed power lines or broken gas or water lines.
- ✓ Check refrigerated food for spoilage if power has been off.
- ✓ Make a list of any damage to individual property and take photographs if possible.
- ✓ Use emergency stored water until tap water is announced as safe to drink.
- ✓ Stay tuned to radio stations for weather conditions and up-to-date information.

Unforgettable: Past storms wreak havoc on U.S. coast

BY SENIOR AIRMAN MIKE MEARES
96TH AIR BASE WING PUBLIC AFFAIRS

The destructive winds of a hurricane define their place in history, but it's the name that's mentioned first.

In 1953, the National Hurricane Center developed a list of female names for Atlantic tropical storms when the winds from these storms reach 39 mph.

In 1979, a rotating list was developed to alternate between male and female names. Storm names are used to facilitate geographic referencing for warning services and legal issues. This is to reduce confusion between two or more tropical storms occurring at one time.

Through a vote of the World Meteorological Organization Region IV Subcommittee, Atlantic hurricane names are retired when hurricanes result in substantial damage or death or for other special circumstances.

Some names become famous and are remembered for generations through stories. In 1960, Hurricane Donna was first detected as a tropical wave coming off the African coast Aug. 29. Two days later it was upgraded to hurricane status and took a west-northwest trajectory for the next five days while continuing to strengthen into a Category 4 hurricane. After taking a couple of days to cross the Leeward Islands and Puerto Rico, Donna took a westerly course and passed over the southeastern Bahamas. She hit the Florida Keys Sept. 9 and turned northeastward to travel along Florida's west coast. Finally crossing the Florida Peninsula Sept. 11, she began following the East Coast northward. Off the North Carolina coast, Hurricane Donna picked up forward momentum and was still packing Category 3 strength. By late in the day Sept. 12, the storm was still packing enough strength to cause damage in the New England states.

Hurricane Donna is the only hurricane on record that produced hurricane-force winds in Florida, the Mid-Atlantic states and New England states — making her one of the all-time great hurricanes of U.S. recorded history.

Winds were recorded at 128 mph with gusts to 150 at Sombrero Key, Fla.; Manteo, N.C., recorded wind gusts of 120 mph, and Block Island, RI, reported winds at 95 mph with gusts to 130 mph. The storm surge in the Florida Keys was 13 feet, and still as high as 5 to 10 feet in New England.

The death toll attributed to Hurricane Donna was over 150 and damages were estimated at \$400 million.

Although Hurricane Donna hit the Florida coast hard, she was a small

Stan Cindy Arlene
Gert Lee Bret Katrina
Emily Maria Vince Nate
Dennis Jose Philippe
Tammy Harvey Rita
Irene Wilma Ophelia Franklin

storm in comparison to Hurricane Camille, who hit the Mississippi coast in August 1969. Starting as a tropical disturbance in the Caribbean Sea, Camille strengthened into a hurricane while located off the western tip of Cuba. Crossing Cuba late Aug. 15, Camille emerged in the southern Gulf of Mexico packing 100 mph winds. While in the south of the Gulf of Mexico, Camille was barely moving, but was intensifying rapidly with winds near 150 mph.

Hurricane Camille was quickly becoming one of the strongest hurricanes ever observed in the Gulf of Mexico with sustained winds of more than 190 mph. The Gulf Coast residents perked up and paid close attention to her.

As Camille marched on the Mississippi coastline under a cloak of darkness, she erased 100 years of growth and progress in only three hours. Homes, motels, apartments, restaurants and other buildings were swept off their foundations and deposited in piles of rubble.

Hurricane Camille's 200 mph wind gusts and 25 foot storm surge produced the highest hurricane tidal surge ever recorded in the U.S. According to the U.S. Army Corps of Engineers (Mobile District 1970), a still-water, high water mark of 22.6 feet above mean tide was measured inside the Veterans of Foreign Wars Clubhouse building in Pass Christian, Miss.

Hurricane Andrew hit Dade County, Fla., early in the morning of Aug. 24, 1992, as the third-strongest hurricane on record to make landfall in the U.S. It crossed Florida and the Gulf of Mexico to hit Louisiana two days later.

The storm killed 15 people in South Florida and another eight in Louisiana. Electrocutings, clean-up accidents and other incidents associated with recovery from the storm killed another 29 people in Florida and nine in Louisiana.

In 1992 Andrew was classified as a Category 4 storm with winds of 145 mph when it hit Florida. In 2002, the National Oceanic and Atmospheric Administration reclassified Andrew as a Category 5 storm, but this did not change Andrew's rank as the third strongest storm on record as hitting the United States.

In 1995, Hurricane Opal was first spotted as a tropical depression near the eastern portions of the Yucatan Peninsula Aug. 30. Drifting slowly into the Bay of Campeche, it became a hurricane Oct. 2.

The storm finally began making a northward turn and rapid strengthening turned Hurricane Opal into a Category 4 storm. She lost a little strength before making landfall just east of Pensacola Beach, Fla., late on Sept. 4.

Wind velocities at Hurlburt Field were measured at 84 mph with gusts to 144, but the primary destructive force of this hurricane was from storm surge. Surges and waves over the western Florida panhandle were measured between 10 and 20 feet. Damages were estimated at \$3 billion—primarily due to surge, and the death toll in the United States and Mexico was 60 people.

The 2004 season was busy for Florida. Hurricane Ivan hit the Emerald Coast Sept. 16 with destructive winds of up to 130 mph. Nicknamed "Ivan the terrible," the storm caused Eglin more than \$86 million alone. Three other hurricanes made landfall in Florida during the season causing an estimated \$1.7 billion in damage.

These storms are just a few to have packed a massive punch to the U.S. coastline in the 20th and 21st centuries. More than 50 storms have gone in the record books and had their names retired since the 1950s.

(For more information about past hurricanes, visit www.nws.noaa.gov.)

Emergency and Information contacts

Eglin information

Evacuation Hotline	(800) 435-9941
Eglin Legal Office	882-4611
Air Force Aid Society	882-4489
Family Support Center	882-9060
Eglin Red Cross	882-5848
96th ABW Public Affairs	882-3931
Disaster Preparedness	882-3173
Pet Welfare Center	678-5066
East/West Gate Reader Boards	882-3931

Hospitals

Eglin Emergency Room	883-8227
FWB Medical Center	863-7607
Sacred Heart	278-3000
Twin Cities Hospital	678-4131
North Okaloosa Medical Center	689-8152
Gulf Breeze Hospital	934-2000
Destin Emergency Care Center	837-9194

Police and Sheriff's Departments

Argyle	892-9730
Crestview	682-2055
Destin	651-7400
North Bay	897-3689
FWB	833-9546
Niceville	729-4030
North Okaloosa Sheriff's Office	689-5666
Shalimar	651-1115
South Okaloosa Sheriff's Office	651-7400
Valparaiso	729-5400

Fire Departments

Crestview	682-6121
DeFuniak Springs	892-9730
Destin	837-8413
FWB	833-9565
Mary Esther	243-5632
Niceville	729-4050
Valparaiso	729-5410

Utilities

Gulf Power	(800) 225-5797
CHELCO	(800) 342-0990
Okaloosa Gas	729-4700
Sprint	611
Cox Cable	862-0175
Time Warner Cable	892-3155
Valparaiso Communications	729-5402

Radio Stations

Emergency Broadcast Stations

1260 AM
99.5 FM

Fort Walton Beach

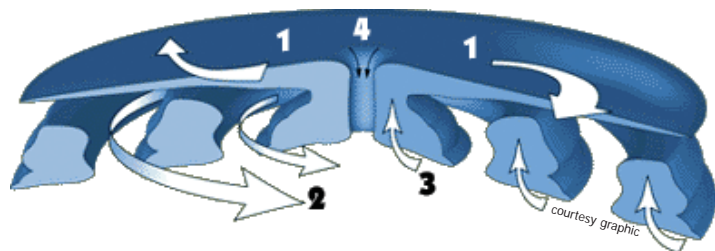
WFTW 1260 AM
WZNS 96.5 FM
WKSM 99.5 FM
WNCV 100.3 FM
WMXZ 103.1 FM
WYZZ 105.5 FM

Pensacola

WUWF 88.1 FM
WYCL 101.5 FM

Destin

WWRK 92.1 FM
WAVB 102.1 FM
WMXZ 103.1 FM



Components of a hurricane

(Left) The components of a hurricane from the outside in are: the outflow (1), feeder bands (2), eyewall (3) and the eye (4). The high level clouds moving clockwise out away from the hurricane at heights of over 50,000 feet are the outflow. These clouds are indicative of air spreading out over the top of the storm, which is essential to its development. The feeder bands are squally bands of showers characterized by strong, gusty winds and heavy rains. These bands become more pronounced as the storm intensifies and are fed by the warm ocean. The eyewall is a band of clouds, strong winds and heavy rains surrounding the eye of the storm. At the eyewall, there is rapid movement of air toward the center and upward into the cloud. Inside the eyewall is the eye. As violent air rises toward the storm center, sinking air develops within the eye. This air dries out, creating the clear, calm eye. Winds are very light here since the focus of convergence, the strong winds, are in the eyewall.

2005 tropical season gears up, multiple storms ahead

LT. COL. JOHN KNOWLES
46TH WEATHER SQUADRON
COMMANDER

The traditional season for tropical activity kicked off June 1 and runs through the end of November.

This marks a six-month period of time where the Eglin community could be threatened by tropical activity, ranging from a tropical depression to a major hurricane.

Hurricanes are products of a tropical ocean and atmosphere. Powered by heat from the sea, they are steered by the easterly trade winds and the temperate westerlies as well as by their own ferocious energy. Around their cores, winds grow with great velocity, generating violent seas.

The process by which a tropical depression forms and strengthens into a hurricane depends on at least three conditions. Warm waters and abundant atmospheric moisture are the first two conditions. The third condition is a wind pattern near the ocean surface that spirals air inward.

Bands of thunderstorms form, allowing the air to warm further and rise higher into the atmosphere. If the winds at these higher levels are relatively light, this structure can remain intact and allow for additional strengthening.

As the system intensifies further and winds approach 75 mph, the characteristic eye begins to form. The center, or eye, of the hurricane is an area of relatively light winds. The strongest winds take place in the area immediately around the eye, called the eyewall. At the top of the eyewall (about 50,000 feet), most of the air is propelled outward, increasing the air's upward motion. Some of the air, however, moves inward and sinks into the eye, helping to create the recognizable cloud-free area.

Moving ashore, tropical storms sweep the ocean inward with life-threatening storm surge and battering waves, while spawning tornadoes and producing torrential rains.

Each year, on average, 10 tropical storms, of which six become hurricanes, develop over the Atlantic Ocean, Caribbean Sea or Gulf of Mexico. Many of these remain over the Atlantic Ocean; however, about five hurricanes strike the United States coastline every three years. Of these five, two will be major hurricanes, Category 3 or greater on the Saffir-Simpson Hurricane Scale.

The Saffir-Simpson Hurricane Scale ranges from Category 1 (minimal damage with winds 74-95 mph) to Category 5 (catastrophic damage with winds greater than 155 mph).

Hurricanes can also vary widely in size. In August 2004, Hurricane Charley came ashore with Category 4 winds (150 miles per hour), yet the entire storm would have fit into the eye of Hurricane Frances (September 2004). Accordingly, winds away from the eyewall can vary greatly. Winds 50 miles from the center of Hurricane Charley were less than 30 mph, while winds 50 miles from the center of Hurricane Ivan (September 2004) approached 100 mph.

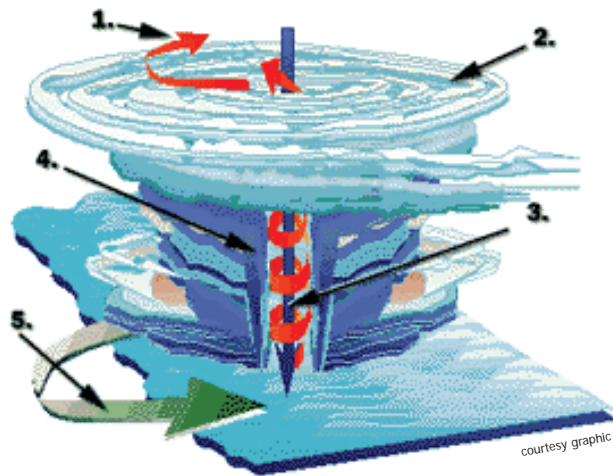
What will 2005 bring to Eglin and its surrounding communities? There are two primary agencies that issue seasonal forecasts; the National Oceanic and Atmospheric Administration and Dr. William Gray, professor of tropical meteorology at Colorado State University.

Both forecasts call for an above average number of tropical systems, including hurricanes and major hurricanes (Category 3 or higher) and increased threat to the United States. The numbers are fairly close to those forecasted in 2004, which called for more

than nine hurricanes and three to four becoming major hurricanes (Category 3 or higher).

Does this mean people should put in their request for a blue tarp and 500-gallon tank of fresh water? No! The forecasts simply state that there will be a higher than normal number of tropical systems in the Atlantic basin. The chances of a hurricane directly striking the Eglin area remain quite small (under 10 percent). The best course of action is to have a hurricane kit ready to go, including water, food, radio, flashlights, batteries, and a good trip plan in case of an evacuation.

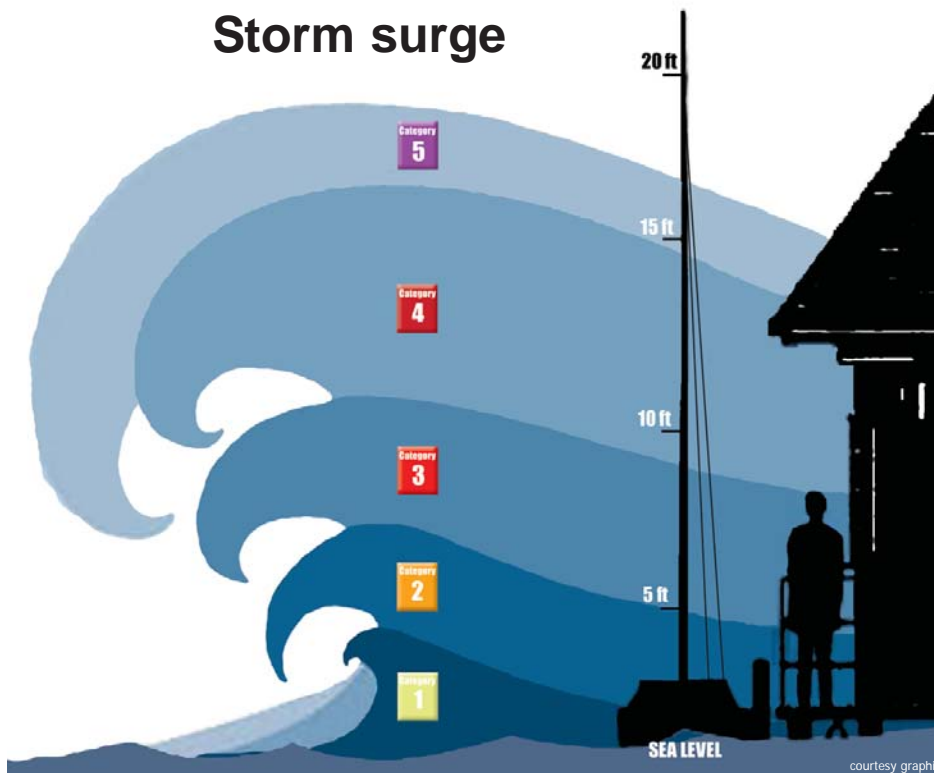
Continue enjoying the terrific Florida weather, but stay aware of what's going on in the tropics.



Anatomy of a hurricane

(Above) The anatomy of a hurricane starts with the exhaust (1) where hot air is drawn into the atmosphere. The storm clouds in the upper atmosphere start a spiral rotation (2). As the storm continues the spiral motion, it creates an eye (3). Cool air descends into the 5 to 30-mile wide eye, creating a small center of calm weather. Just outside the eye is the Eyewall (4) where the storm's strongest winds are felt. The spiraling winds (5) in the hurricane's lower realms flow in toward the center and whirl upward. These counterclockwise winds gain speed as they approach the eye, like a whirlpool.

Storm surge



Storm surge is water that is pushed toward the shore by the force of the winds swirling around the storm. This advancing surge combines with the normal tides to create the hurricane storm tide, which can increase the water level 15 feet or more.